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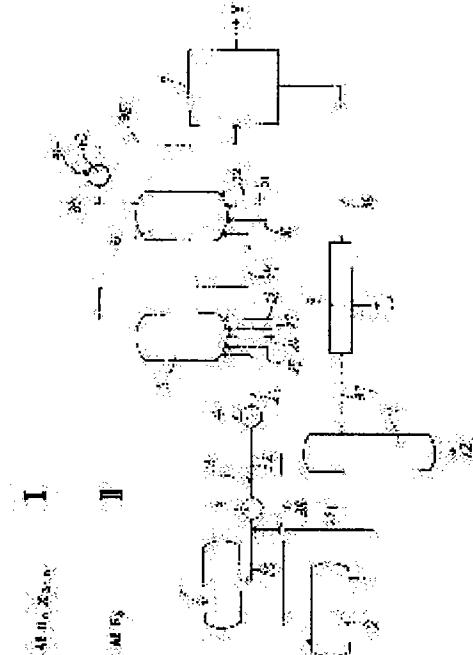
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## (54) PRODUCTION OF REINFORCED POLYBUTADIENE RUBBER

### (57)Abstract:

PURPOSE: To obtain the titled rubber of excellent properties, by completely removing carbon disulfide used as a component of a 1,2 polymerization catalyst.

CONSTITUTION: 1,3-Butadiene is mixed with an inert organic solvent. To this mixture a cis-1,4 polymerization catalyst comprising a Co compound and an organoaluminum compound of formula I (wherein R is a 1W6C alkyl or the like; X is a halogen; and n is 1.5W2) is added to form 1,4-polybutadiene (5). A 1,2- polymerization catalyst comprising carbon disulfide, a Co compound and an arganoaluminum compound of formula II is added to the above polymerization reaction mixture, and 1,3-butadiene is polymerized to obtain the final polybutadiene rubber having a boiling n-hexane-insoluble portion of 5W30wt% and a boiling n-hexane-soluble portion of 95W70wt% (6). After adding a polymerization short-stop, the



solid polybutadiene rubber is separated and recovered, and then the carbon disulfide is separated by distillation and/or adsorption to obtain the titled rubber substantially free from carbon disulfide.